



27 JUN 1983

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INTERNATIONAL DATA CORPORATION

Dear Briefing Session Attendee:

You will find enclosed an IDC memorandum, #2400, Industry Preview: User Spending. This contains our current figures for 1981 and 1982 spending by DP/MIS departments, and estimated for 1983 spending. The information is analyzed for major industry groups and by size of DP/MIS budget.

Ordinarily, IDC distributes this midyear update only to clients of two Continuous Information Services. However, we felt that in this year of a transitional economy, it would be of value to all our clients. We hope you find it useful.

Sincerely,

International Data Corp.

encl.



INTERNATIONAL DATA CORPORATION

RESEARCH MEMORANDUM

INDUSTRY PREVIEW/USER SPENDING

INTRODUCTION

Each year IDC conducts a survey to obtain information on current and projected EDP spending by MIS and DP organizations. Early this year, IDC compiled data from over 350 survey responses on actual EDP expenditures for 1981 and 1982, and planned expenditures for 1983. These data, together with IDC's extensive datafile of computer installations, financial and other publicly available vendor data, and vendor-supplied shipment data, provide the basis for identifying trends and building projections that are presented in the following sections. The sections contain tables and figures on MIS EDP spending by budget items within expense categories, and expense categories by industry group and budget size. Appendix A contains definitions for each budget item, and Appendix B contains Standard Industrial Classification (SIC) codes and changes from past reports for the industry groups.

Major Expense Categories

Table 1 and Figure 1 show the percent of budget and percent of growth (or percent change) for 1981, 1982, and 1983 by the major expense categories. These seven categories are ranked by percent of budget, and they show no change in relative position and only minor changes in the budget percent figures over the three years.

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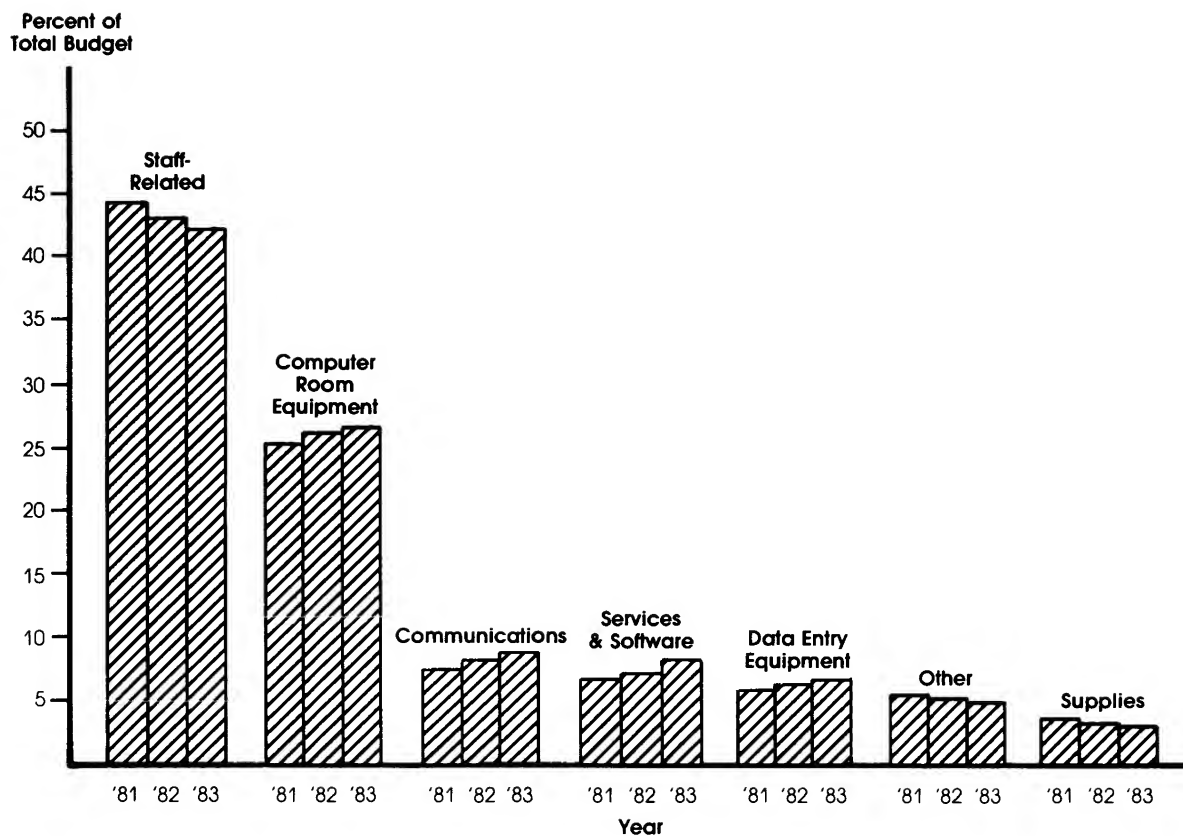
June 1983

TABLE 1
MIS USER EDP SPENDING
PERCENT OF BUDGET BY EXPENSE CATEGORY
1981-1983

Expense Categories*	% of Budget			% Growth		Difference in % of Budget 1982/83
	1981	1982	1983	1981/82	1982/83	
Staff-Related	44.6	43.1	42.2	10.0	12.0	-0.9
Computer Room Equipment	25.4	26.2	26.3	17.2	15.0	0.1
Communications	7.8	8.3	8.7	21.0	20.0	0.4
Services and Software	6.9	7.4	8.2	22.6	26.0	0.8
Data Entry	5.9	6.2	6.3	20.0	16.5	0.1
Other	5.5	5.1	4.8	4.5	9.0	-0.3
Data Processing Supplies	3.9	3.7	3.5	7.7	9.0	-0.2
TOTAL	100.0	100.0	100.0	13.8	14.5	-

*See Appendix A for components of Expense Categories.

Figure 1
MIS User EDP Spending
Percent of Budget by Expense Categories
1981-1983



*See Appendix A for Components of Expense Categories

While still the largest expenditures for MIS departments, staff-related expenses' percent of budget continues to decline. Its 1982 to 1983 growth is expected to increase by 12.0% with only other and data processing supplies categories lower (both at 9.0%). This decrease in proportion of budget has shifted an increase to several other areas, most notably the services and software and communications categories. For 1981 to 1982, software grew by 22.6% and communications by 21.0%, and for 1982 to 1983, they are estimated to grow by 26.0% and 20.0%, respectively. Spending on data entry and computer room equipment will grow 16.5% and 15% for 1982 to 1983, down slightly from their 1981 to 1982 growth of 20.0% and 17.2%.

Trends

For the major expense categories as well as for the following tables and figures on EDP spending, IDC has observed several prevailing conditions or trends which assist in predicting the direction of EDP spending. While not accounting for specific or unique changes in some business areas, a generalization of these common factors can provide a reasonable basis for interpreting the data.

- Economic Conditions. Obviously, the recessionary economy has restricted the growth rate for information processing within most businesses. Lower percent increases for 1983 MIS budgets were instituted last year, and except for dramatic changes in some market sectors, budgets will stay conservative for the remainder of the year. Table 1 shows the overall growth changing by less than a percentage point -- 13.8% in 1981-1982 and 14.5% in 1982-1983.
- Personnel Shifts. Hiring freezes or delays in hiring have been an inherent part of restricted spending due to poor economic conditions. In an effort to maintain or even to increase productivity in this "no-growth" environment, there has been a continuing shift in types of MIS personnel, especially toward a higher professional level and more technically versatile staff. This trend has coincided with the increased activity in information processing by users, especially in areas such as user-controlled data entry and micro-level equipment. Staff-related expenses are expected to grow by only 12.0% for 1982-1983.
- Communications Growth. The trend toward increased use of communications equipment has in part resulted from the implementation of the "information as a corporate resource" concept as well as dramatically improved and lower cost technology. The availability and lower cost of equipment, the increasing demand for access to corporate data, and the evolution of information management and processing as part of the business strategy to improve products and service, has and will continue to increase expenditures for communications products.

- Software Growth. There continues to be a proliferation of new software products entering the marketplace as well as improvements to existing ones. These products cover more specialized areas of business and offer more capabilities while enhancing their "ease of use" for both technical and non-technical personnel. The increased number of users and the resulting demand for data accessibility continues the trend toward productivity improvements through software rather than by hardware alone. As shown in Table 1, services and software has the largest growth rate: 22.6% for 1981 to 1982; and 26.0% for 1982 to 1983.
- User Involvement. Already mentioned above as a factor, the trend toward using processed information in all levels of business activity has greatly increased the number of users within organizations and their demand for equipment and access to corporate data. Along with improved technology and lower equipment costs, these factors have continued to stimulate growth in communications and software. Changes in hardware expenditures result from the need to support improved software and communications that satisfy users' growing needs.

BUDGET ITEMS WITHIN EXPENSE CATEGORIES

This section contains budget item data for each of the major spending categories. For 1981-1983, Table 2 gives spending amounts (dollars), percent of budget and percent growth for each budget item. Figures 2 through 8 depict the percent of the total budget for each budget item within an expense category. The definition for each line item can be found in Appendix A.

From the discussion in the Introduction on several factors and trends that are influencing MIS EDP spending, these same factors can also be applied to changes in the more detailed budget items. Highlights of budget items information are:

- Small increases in staff-related expenses that pertain to improvement in current personnel -- a 12.1% growth in travel and a 10.0% growth in training for 1982-1983, which represent a positive jump from 4.5% and 2.9% in 1981-1982.
- Percent of growth for computer room equipment budget items all dropped slightly from 1981-1982 to 1982-1983. Due to the pace of economic recovery, it is not surprising to find limited spending for capital investments.
- As part of the trend in communications growth, data communications continued to grow from 4.0% of the budget in 1981 to 5.0% in 1983 with a 24.9 growth percentage for 1982-1983.
- Except for timesharing/service bureau expenditures, all budget items under services and software showed increases in percent of budget for all three years. Manifesting the growing reliance on purchased software, spending for software use charges by computer manufacturers will grow by 34.0% during 1982-1983, and spending for software use charges/independents is expected to grow by 41.9% for the same time period.
- Due to the growth in the number of users and their need for access to data, spending on terminals and terminal controllers grew by 25.0% for 1981-1982 and is estimated to grow by 20.3% for 1982-1983.

TABLE 2
MIS USER EDP SPENDING
BUDGET ITEMS WITHIN EXPENSE CATEGORIES
1981-1983

Budget Items Within Categories*	Spending (\$M)			% of Budget			% Growth	
	1981	1982	1983	1981	1982	1983	1981/1982/	1982/1983
<u>Staff-Related</u>								
Salaries	26,405	28,910	32,310	40.0	38.5	37.6	9.5	11.8
Other	2,015	2,415	2,780	3.1	3.2	3.2	19.9	15.1
Travel	670	700	785	1.0	0.9	0.9	4.5	12.1
Training	340	350	385	0.5	0.5	0.5	2.9	10.0
SUBTOTAL	29,430	32,375	36,260	44.6	43.1	42.2	10.0	12.0
<u>Computer Room Equipment</u>								
Rental and/or lease payments to mfrs.	8,375	8,835	9,015	12.7	11.8	10.5	5.5	2.0
Depreciation for purchase equip.	3,140	4,160	5,410	4.8	5.5	6.3	32.5	30.0
Payments to third- party lessors	2,330	3,145	4,050	3.5	4.2	4.7	35.0	28.8
Maint. charges	2,360	2,835	3,345	3.6	3.8	3.9	20.0	18.0
Other	550	660	760	0.8	0.9	0.9	20.0	15.2
SUBTOTAL	16,775	19,635	22,580	25.4	26.2	26.3	17.2	15.0
<u>Communications</u>								
Data Comm.	2,625	3,430	4,285	4.0	4.6	5.0	30.7	24.9
Voice Comm.	2,550	2,830	3,225	3.8	3.8	3.7	11.0	14.0
SUBTOTAL	5,175	6,260	7,510	7.8	8.4	8.7	21.0	20.0

*See Appendix A for an explanation of Budget Items.

TABLE 2: MIS USER EDP SPENDING BUDGET ITEMS WITHIN EXPENSE CATEGORIES
1981-1983 -- Continued

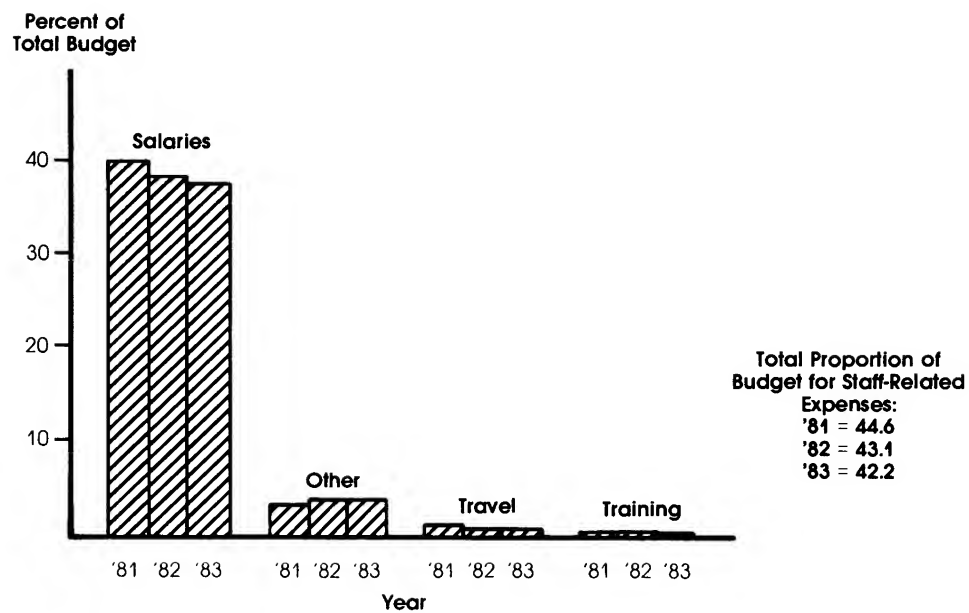
Budget Items Within Categories*	Spending (\$M)			% of Budget			% Growth	
	1981	1982	1983	1981	1982	1983	1981/ 1982	1982/ 1983
<u>Services and Software</u>								
SW use charges by computer mfrs.	1,350	1,734	2,323	2.0	2.3	2.7	28.4	34.0
SW use charges/ independents	850	1,184	1,680	1.3	1.6	2.0	39.3	41.9
Custom Prog./ consulting	1,130	1,319	1,599	1.7	1.8	1.9	16.7	21.2
Timesharing/ SB Expend.	960	1,072	1,131	1.5	1.4	1.3	11.7	5.5
SW Developed In-House	255	261	287	0.4	0.4	0.3	2.4	10.0
SUBTOTAL	4,545	5,570	7,020	6.9	7.5	8.2	22.6	26.0
<u>Data Entry</u>								
Terminals & Terminal Con- trollers	2,780	3,475	4,180	4.2	4.6	4.9	25.0	20.3
Data Entry Equip.	745	765	765	1.2	1.0	0.9	2.7	0.0
Other	340	400	460	0.5	0.5	0.5	17.6	15.0
SUBTOTAL	3,865	4,640	5,405	5.9	6.1	6.3	20.0	16.5
<u>Other Expenses</u>								
Rent, Util., Overhead	2,340	2,480	2,730	3.5	3.3	3.2	6.0	10.1
Other	1,285	1,310	1,400	2.0	1.7	1.6	1.9	6.9
SUBTOTAL	3,625	3,790	4,130	5.5	5.0	4.8	4.6	9.0

TABLE 2: MIS USER EDP SPENDING BUDGET ITEMS WITHIN EXPENSE CATEGORIES
1981-1983 -- Continued

Budget Items Within Categories*	Spending (\$M)			% of Budget			% Growth	
	1981	1982	1983	1981	1982	1983	1981/ 1982/	1982/ 1983
<u>Data Processing Supplies</u>								
Computer Forms	1,905	2,000	2,160	2.9	2.7	2.5	5.0	8.0
Tape Reels, Disk Packs, Floppy Disks	425	510	575	0.6	0.6	0.7	20.0	12.7
Cards, Ribbons, etc.	265	285	310	0.4	0.4	0.3	7.5	8.8
SUBTOTAL	2,595	2,795	3,045	3.9	3.7	3.5	7.7	8.9
TOTAL	65,990	75,065	85,950	100.0	100.0	100.0	13.8	14.5

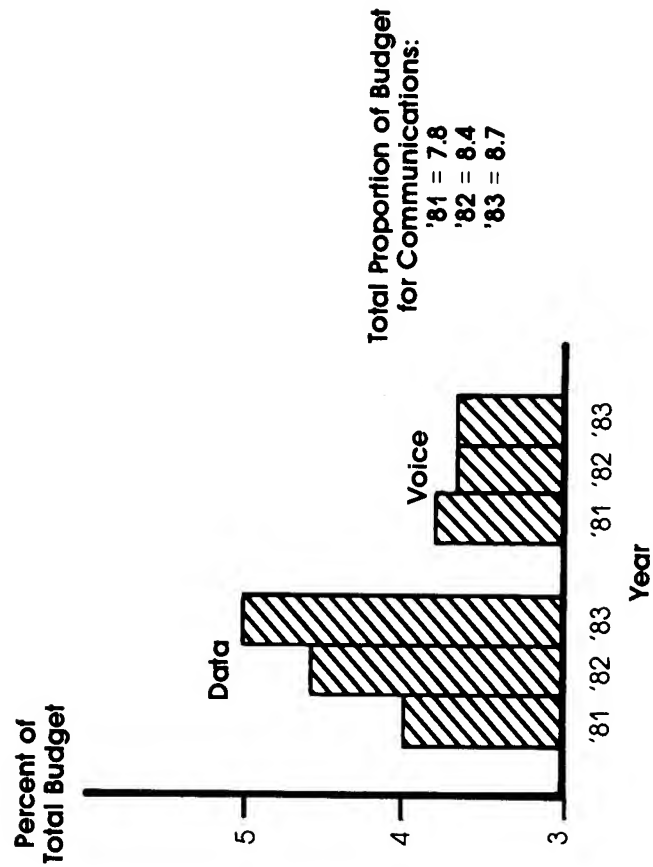
*See Appendix A for an explanation of Budget Items.

Figure 2
MIS User EDP Spending
Staff-Related Expenses Category
As A Percent of the Total Budget*
1981-1982



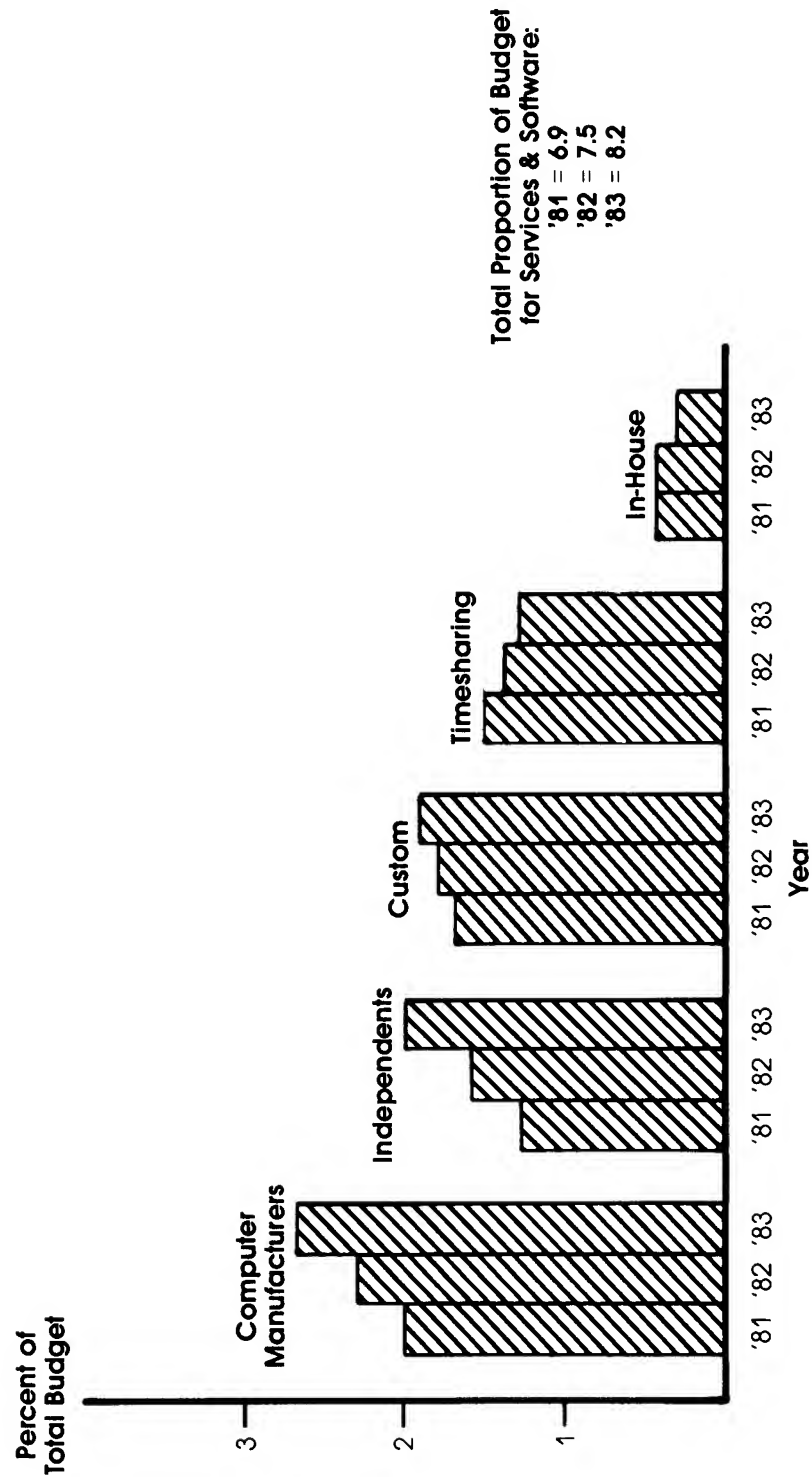
*See Appendix A for Components of Expense Categories

Figure 4
MIS User EDP Spending
Communications Expenses Category
As A Percent of the Total Budget*
1981-1983



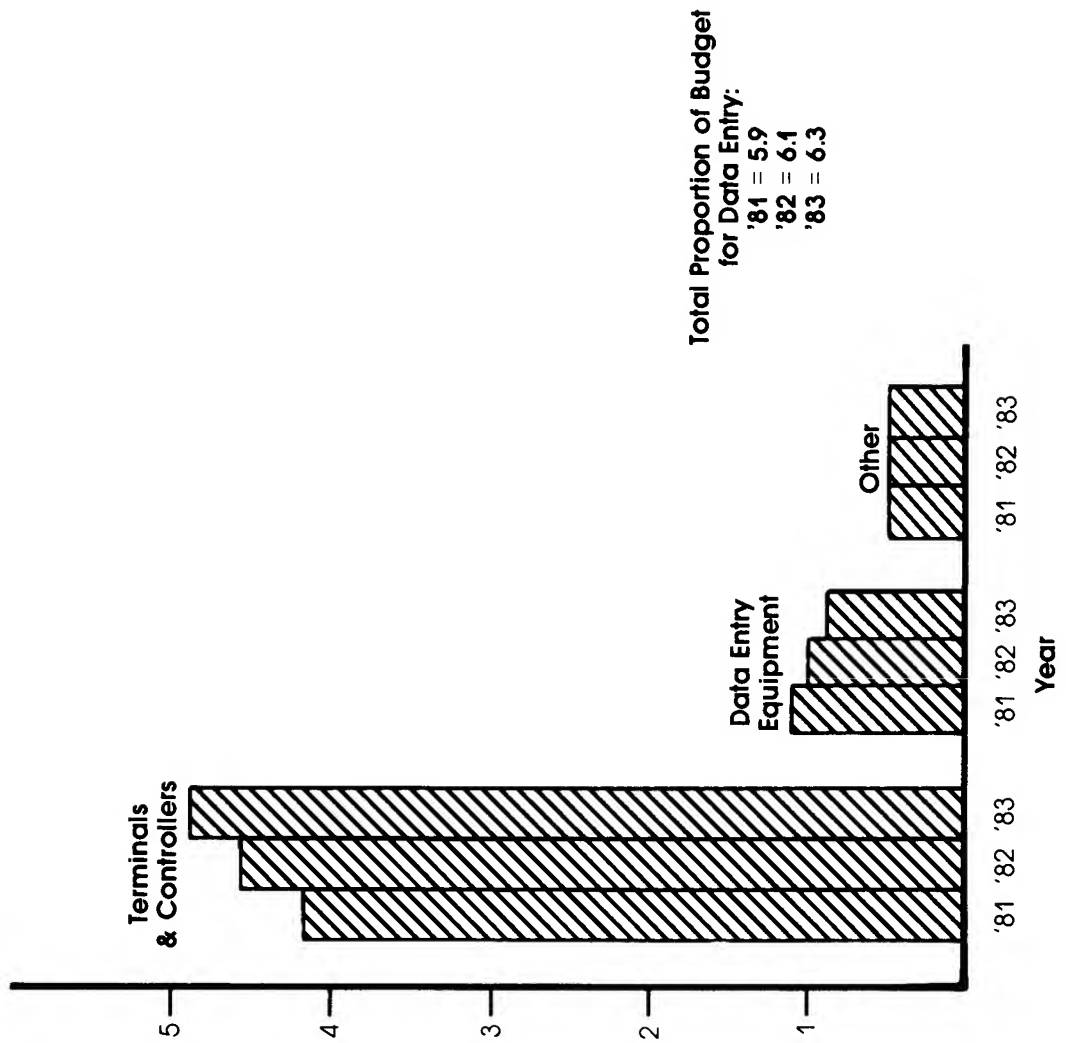
*See Appendix A for Components of Expense Categories

Figure 5
MIS User EDP Spending
Services & Software Expenses Category
As A Percent of the Total Budget*
1981-1983



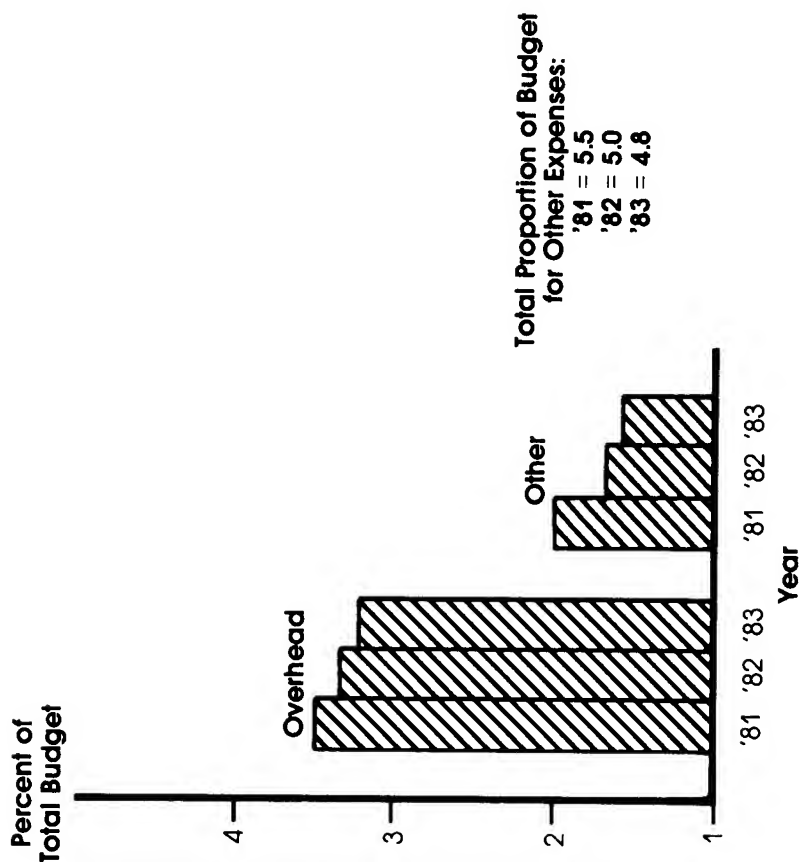
*See Appendix A for Components of Expense Categories

Figure 6
MIS User EDP Spending
Data Entry Expenses Category
As A Percent of the Total Budget*
1981-1983



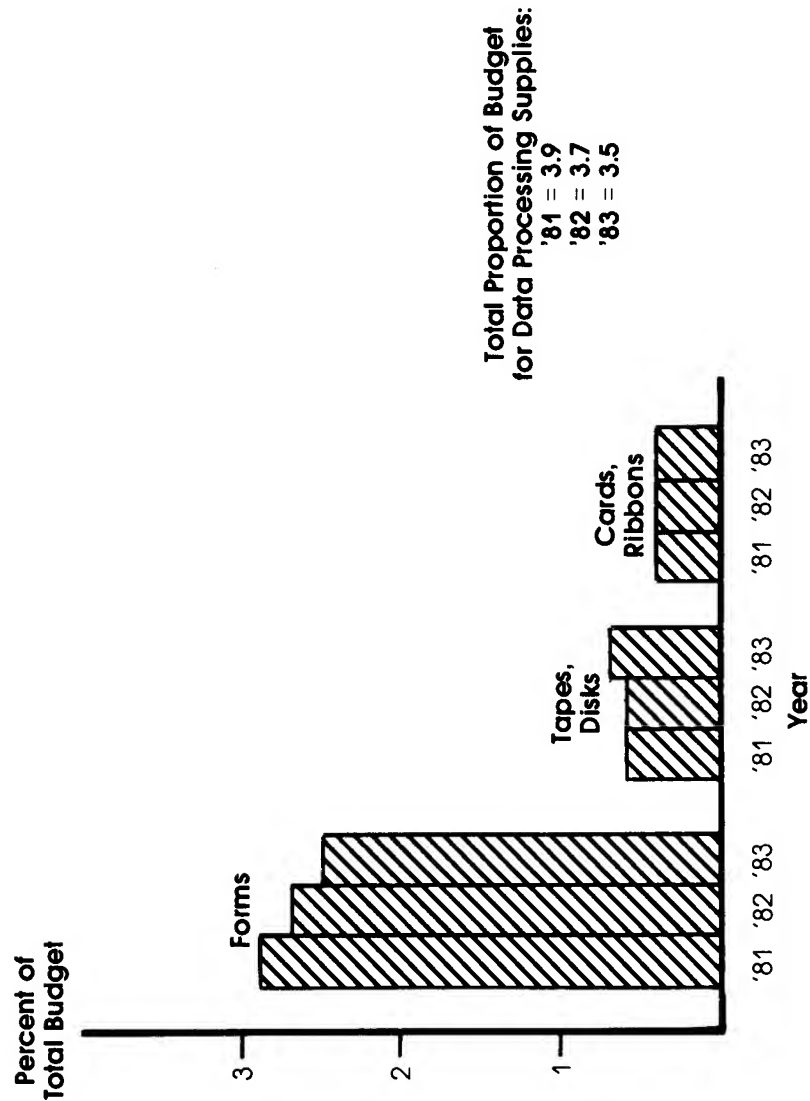
*See Appendix A for Components of Expense Categories

Figure 7
MIS User EDP Spending
Other Expenses Category
As A Percent of the Total Budget*
1981-1983



*See Appendix A for Components of Expense Categories

Figure 8
MIS User EDP Spending
Data Processing Supplies Expenses Category
As A Percent of the Total Budget*
1981-1983



*See Appendix A for Components of Expense Categories

EXPENSE CATEGORIES FOR SELECTED INDUSTRY GROUPS

Table 3 presents the estimated EDP spending for 13 industry groups for 1981, 1982, and 1983. For the same years, Table 4 shows the percent of budget for each expense category for each industry group. Appendix B explains the breakdown of industry groups by SIC Codes. The breakdown of total spending presented in this section reflects survey data and IDC's knowledge of the installed base of data processing equipment. Highlights of spending information for industry groups are:

- Among the 13 industry groups, durables and health and medical services reported the highest percentages for 1983 staff-related expenses, 45.1% and 49.2%, compared with the overall total of 42.2%.
- Service bureaus reported the highest percent of budget allocated to communications expenses (20.0%) for 1983, compared with the total of 8.7%. However, most other expense categories are below overall percentages: staff-related at 37.4% (the lowest percentage for all industries), compared with 42.2% overall; computer room equipment at 24.5%, compared with 26.3% overall; services and software at 5.2% compared with 8.2% overall.
- Educational institutions show a decreasing trend in computer room equipment spending over the three years, unlike the overall trend of increasing expenditures for this category. However, education's percent of the budget for computer room equipment (29.4%) remained above the overall percentage (26.3%) for 1983.
- Among the 13 industry groups, government reported the highest proportion of budget allocated to computer room equipment (29.9%) but was over 4% below the total of 42.2% for staff-related expenses.

TABLE 3
MIS USER EDP SPENDING FOR SELECTED INDUSTRY GROUPS
1981-1983

Industry Groups*	Spending (\$M)			% Change	
	1981	1982	1983	1981/ 1982	1982/ 1983
Agriculture, Mining, Construction	1,385	1,650	1,850	19.1	12.1
Primary Metals, Fabricated Metal Products, Electrical & Electronic Equipment (Durables)	10,360	10,995	12,550	6.1	14.1
Other Mfg. (Non-Durable)	5,800	6,450	7,250	11.2	12.4
Transportation, Communication, & Utilities	6,665	8,000	9,300	20.0	16.2
Service Bureaus	6,730	7,850	9,100	16.6	15.9
Banking	5,920	7,350	8,500	24.2	15.6
Finance, Insurance, Real Estate	6,725	7,710	8,900	14.6	15.4
Wholesale Trade	2,110	2,290	2,550	8.5	11.4
Retail Trade	3,230	3,570	3,950	10.5	10.6
Health & Medical Services	3,100	4,120	4,800	32.9	16.5
Education	3,085	3,200	3,550	3.7	10.9
Other Services	1,055	1,280	1,600	21.3	25.0
Government	9,825	10,600	12,050	7.9	13.7
TOTAL	65,990	75,065	85,950	13.8	14.5

*See Appendix B for information on Industry Groups.

TABLE 4
MIS USER EDP SPENDING
EXPENSE CATEGORIES FOR SELECTED INDUSTRY GROUPS
1981-1983

Expense Category	% of Budget		
	1981	1982	1983
AGRICULTURE, MINING, CONSTRUCTION			
Staff-Related	42.2	44.6	43.0
Computer Room Equipment	19.2	24.6	25.5
Communications	6.0	6.7	6.0
Services and Software	9.0	12.5	13.5
Data Entry	4.3	6.0	6.4
Other Expenses	17.2	3.0	2.6
Data Processing Supplies	2.1	2.6	3.0
PRIMARY METALS; FABRICATED METALS; ELECTRICAL AND ELECTRONIC EQUIPMENT (DURABLES)			
Staff-Related	47.3	45.0	45.1
Computer Room Equipment	24.1	26.2	26.3
Communications	8.0	7.6	6.0
Services and Software	7.8	8.0	8.3
Data Entry	4.4	7.0	8.0
Other Expenses	4.0	2.6	3.0
Data Processing Supplies	4.4	3.6	3.3
OTHER MANUFACTURING			
Staff-Related	43.2	44.3	42.0
Computer Room Equipment	23.1	23.1	26.1
Communications	8.8	8.5	9.0
Services and Software	9.3	8.9	8.6
Data Entry	4.3	5.1	5.3
Other Expenses	6.1	5.5	4.1
Data Processing Supplies	5.2	4.6	4.9
TRANSPORTATION, COMMUNICATION AND UTILITIES			
Staff-Related	45.3	43.2	41.9
Computer Room Equipment	26.1	25.2	25.5
Communications	5.7	7.1	7.1
Services and Software	9.6	10.3	12.5
Data Entry	5.2	6.8	7.0
Other Expenses	5.0	4.3	3.1
Data Processing Supplies	3.1	3.1	2.9

TABLE 4: MIS USER EDP SPENDING EXPENSE CATEGORIES FOR SELECTED INDUSTRY GROUPS 1981-1983 -- Continued

Expense Category	% of Budget		
	1981	1982	1983
SERVICE BUREAUS			
Staff-Related	42.4	33.3	37.4
Computer Room Equipment	25.1	28.3	24.5
Communications	21.4	20.0	20.0
Services and Software	2.1	4.5	5.2
Data Entry	3.9	4.5	4.0
Other Expenses	2.3	5.5	4.5
Data Processing Supplies	2.8	3.9	4.4
BANKING			
Staff-Related	44.2	45.6	45.0
Computer Room Equipment	28.2	29.2	26.3
Communications	7.7	9.1	9.1
Services and Software	5.2	4.7	5.0
Data Entry	8.4	5.9	7.6
Other Expenses	3.8	2.6	4.0
Data Processing Supplies	2.5	2.9	3.0
FINANCE, INSURANCE, REAL ESTATE			
Staff-Related	44.3	48.2	45.0
Computer Room Equipment	23.1	20.4	23.0
Communications	9.7	7.6	8.8
Services and Software	2.3	3.0	4.8
Data Entry	6.2	3.7	5.0
Other Expenses	13.5	15.9	12.0
Data Processing Supplies	0.9	1.2	1.4
WHOLESALE TRADE			
Staff-Related	39.2	41.0	39.8
Computer Room Equipment	24.0	23.4	24.3
Communications	8.5	7.5	8.1
Services and Software	6.2	8.5	9.0
Data Entry	6.9	6.7	7.4
Other Expenses	10.0	8.5	7.0
Data Processing Supplies	5.2	4.4	4.4

TABLE 4: MIS USER EDP SPENDING EXPENSE CATEGORIES FOR SELECTED INDUSTRY GROUPS 1981-1983 -- Continued

Expense Category	% of Budget		
	1981	1982	1983
RETAIL TRADE			
Staff-Related	38.5	41.8	42.0
Computer Room Equipment	29.0	24.1	26.0
Communications	4.0	5.3	5.1
Services and Software	12.8	9.5	8.0
Data Entry	5.9	7.5	6.9
Other Expenses	1.1	3.6	4.0
Data Processing Supplies	8.7	8.2	8.0
HEALTH AND MEDICAL SERVICES			
Staff-Related	46.8	54.4	49.2
Computer Room Equipment	23.4	25.4	27.0
Communications	2.7	3.1	4.9
Services and Software	8.1	7.7	8.4
Data Entry	5.9	3.2	3.8
Other Expenses	10.0	3.1	3.8
Data Processing Supplies	3.1	3.1	2.9
EDUCATION			
Staff-Related	36.9	41.2	39.9
Computer Room Equipment	37.3	32.8	29.4
Communications	2.7	3.1	5.3
Services and Software	11.2	10.5	9.9
Data Entry	5.8	6.6	6.5
Other Expenses	1.0	1.5	4.0
Data Processing Supplies	5.1	4.3	5.0
OTHER SERVICES			
Staff-Related	44.7	40.0	37.5
Computer Room Equipment	26.5	25.0	28.0
Communications	3.1	7.9	10.0
Services and Software	13.3	13.1	13.0
Data Entry	4.8	8.0	3.5
Other Expenses	3.1	1.4	4.0
Data Processing Supplies	4.5	4.6	4.0

TABLE 4: MIS USER EDP SPENDING EXPENSE CATEGORIES FOR SELECTED INDUSTRY GROUPS 1981-1983 -- Continued

Expense Category	% of Budget		
	1981	1982	1983
GOVERNMENT			
Staff-Related	49.3	39.5	38.0
Computer Room Equipment	24.5	29.2	29.9
Communications	3.2	6.4	8.0
Services and Software	5.6	7.5	9.2
Data Entry	8.4	9.1	7.1
Other Expenses	3.8	3.7	4.8
Data Processing Supplies	5.2	4.6	3.0

EXPENSE CATEGORIES BY BUDGET SIZE

Table 5 presents expense categories by MIS budget size for 1981-1983, and Figure 9 shows the 1983 percentages for each budget size group. The breakdown of total spending presented in this section reflects survey data and IDC's knowledge of the installed base of data processing equipment. Highlights for budget size information are:

- Generally, the seven expense categories within budget size follow the overall trends (see Table 1) in allocation of budget expenses: increases in computer room equipment, communications, services and software, data entry percentages, and decreases in staff-related, other, and data processing supplies percentages.
- Some of the exceptions to this trend were in areas that had been higher or lower in comparison to the total proportion. For example, staff-related spending increased for the \$250-500,000 budget group, in contrast to the decreasing overall trend. The percent of the budget increased from 38.2% in 1982 to 39.9% in 1983, but still remained below the overall percentages of 43.1 for 1982 and 42.2 for 1983.
- The lower end of the budget size groups tended to spend a higher proportion of their budget on computer room equipment, and services and software. For budgets under \$250,000, the 1983 computer room equipment spending was 35.6% as compared with the overall 26.3% for 1983 and the 25.2% for budgets over \$2 million.
- The smaller-sized budgets also tended to spend a lesser proportion on communications and data entry. For the \$250-500,000 budget group, 5.0% of the budget was allocated to communications while the over \$2 million group allocated 9.9% for 1983. The overall percentage in 1983 was 8.7% for communications.

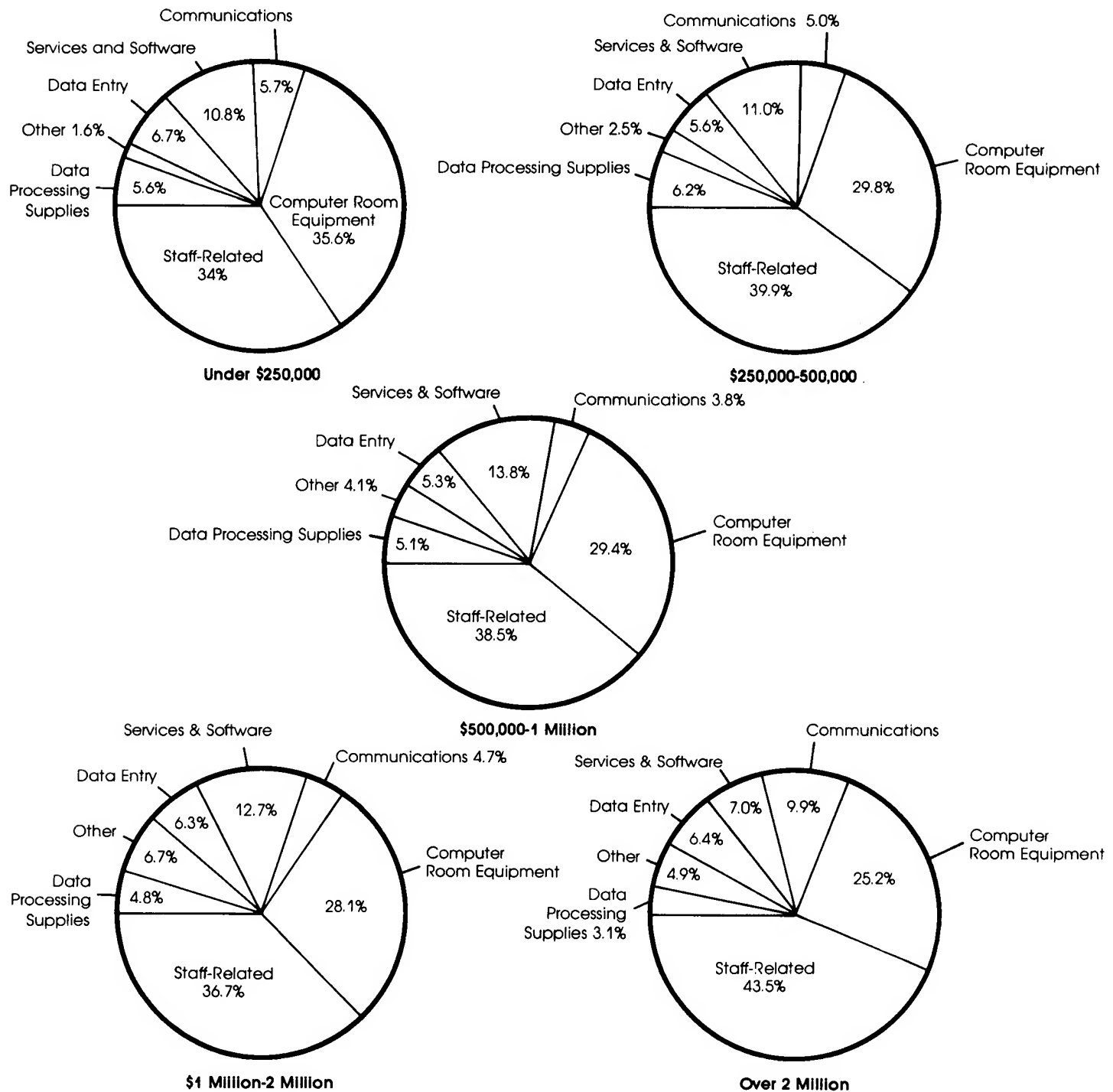
TABLE 5
MIS USER EDP SPENDING
EXPENSE CATEGORIES BY BUDGET SIZE
1981-1983

Expense Categories	% of Budget		
	1981	1982	1983
UNDER \$250,000			
Staff-Related	40.0	38.0	34.0
Computer Room Equipment	33.9	32.9	35.6
Communications	3.5	4.0	5.7
Services and Software	8.1	10.4	10.8
Data Entry	5.7	5.9	6.7
Other	2.2	2.2	1.6
Data Processing Supplies	6.6	6.6	5.6
\$250,000-500,000			
Staff-Related	40.4	38.2	39.9
Computer Room Equipment	28.4	30.0	29.8
Communications	3.6	4.6	5.0
Services and Software	10.6	10.7	11.0
Data Entry	6.7	5.9	5.6
Other	3.4	3.9	2.5
Data Processing Supplies	6.9	6.7	6.2
\$500,000-1 Million			
Staff-Related	40.6	37.3	38.5
Computer Room Equipment	32.0	33.2	29.4
Communications	2.4	3.2	3.8
Services and Software	11.1	11.3	13.8
Data Entry	4.6	4.6	5.3
Other	3.6	5.1	4.1
Data Processing Supplies	5.7	5.3	5.1
\$1 Million-2 Million			
Staff-Related	37.3	35.7	36.7
Computer Room Equipment	28.0	28.4	28.1
Communications	3.5	4.0	4.7
Services and Software	11.2	11.9	12.7
Data Entry	6.5	6.3	6.3
Other	7.9	8.9	6.7
Data Processing Supplies	5.6	4.8	4.8

TABLE 5: MIS USER EDP SPENDING EXPENSE CATEGORIES BY BUDGET SIZE
1981-1983 -- Continued

Expense Categories	% of Budget		
	1981	1982	1983
Over \$2 Million			
Staff-Related	46.5	44.9	43.5
Computer Room Equipment	24.6	24.8	25.2
Communications	9.1	9.7	9.9
Services and Software	6.0	6.3	7.0
Data Entry	6.0	6.3	6.4
Other	4.3	4.8	4.9
Data Processing Supplies	3.5	3.2	3.1

Figure 9
MIS User EDP Spending
Expense Categories by Budget Size
1983



APPENDIX A

DEFINITIONS FOR EXPENSE CATEGORIESStaff-Related Expenses

- Salaries. Included in this item are the full complement of benefits in addition to the salary provided to employees.
- Other Staff-Related Expenses. This item is provided for respondents with expenditures not properly classified in the previous line items.
- Travel. Business-related travel expenses are included here.
- Training. This item includes workshops, seminars, and other instructional forums paid for by the employer.

Computer Room Equipment

- Rental or Lease Payments to Manufacturers. This item includes payments to independent peripheral suppliers as well as the mainframe company for all computer room equipment not elsewhere classified. Some respondents were not able to separate out the amounts for terminals and controllers supplied by the mainframe company (which is a separate budget category, found under terminals and data entry equipment). When this was the case, the response was eliminated from the item by item comparisons (though the amount is reflected in the total).
- Depreciation Charges for Purchased Equipment. Most users show depreciation charges rather than actual purchases in their budget; this item captures those expenses.
- Lease Payments to Third Party. Included here are hardware payments to nonmanufacturers including lessors of full computer systems and peripherals.
- Maintenance Charges on Owned Equipment. A maintenance charge on rented equipment is generally included in the general category of rental, so this category is primarily payments for owned equipment.
- Other. An "other" category was provided for users reporting budget items inconsistent with the above categories.

Communications Expenses

- Data Communications Equipment. This item includes the cost of equipment used in transmitting data such as modems, front ends, etc., and expenditures for the actual transmission of data such as dial-up costs, leased line costs, etc.
- Voice Communications Equipment. This item includes the cost of telephone communications equipment such as keysets, PBX systems, etc., and costs associated with regular telephone communications such as WATS line costs, toll service, etc.

Services and Software

- Software Licenses/Fees Paid to Hardware Manufacturers. In this item are the users' payments to their hardware manufacturer for the manufacturer's system and utility software and to a small extent, the application packages provided by manufacturers.
- Software Licenses/Fees Paid to Independent Suppliers. Again, this is a mixture of software packages. For the independents, the emphasis is on application packages with a healthy amount of business also being done in utilities packages.
- Custom Programming/Design and Consulting Services. Money spent for this item will go to shops providing contract programming, custom software, or facilities management services.
- Expenditures for Outside Timesharing Services. Included in this category are the service bureaus and those enterprises selling availability of specialized "value-added" software to clients.
- Expenditures for Software Developed In-house. Included in this category are those expenses related to in-house software development except salaries. Some respondents noted that the figure they quoted did include salaries; for these respondents Sections C and F were not used for separate comparison but they did have their totals included in the overall budget.

Terminals and Data Entry Equipment

- Terminals and Terminal Controllers. This item includes point-of-sale terminals, processing terminals, (intelligent) terminals, and controllers.

- Data Entry Equipment. This item looks at equipment that is typically outside of the computer room and includes key-punches, key-to-disk, and other input equipment.
- Other. Includes remote equipment not mentioned above.

Other Expenses

- Rent, Utilities and Other Overhead. Most of these items fall into the slot of "cost of doing business." Rent, utilities, and insurance are included here with other items necessary for the general operation of business.
- Other. This category is provided for users reporting expenditures not properly classified elsewhere.

Data Processing Supplies

- Computer Forms. Both stocked and custom forms are included here.
- Tape Reels, Disk Packs, Floppy Disks. This item includes products available from mainframe computer manufacturers and products made by independents to be run on computers of every size.
- Cards, Ribbons, etc. Key punch cards, ribbons and miscellaneous supply items are grouped here.

APPENDIX B

CORRESPONDING SIC CODES FOR IDC USER SPENDING GROUPS

Appendix B contains the Federal Government's Standard Industrial Classification codes as they correspond to the User Survey.

CORRESPONDING SIC CODES FOR IDC USER SPENDING GROUPS

Industry	SIC
Agriculture, Mining, and Construction	01-17
Primary Metals, Fabricated Metal Products, Machinery and Electronic Equipment (Durables)	33, 34, 35, 36, 37, 38
Other Manufacturers (Non-durable Mfg.)	20-32; 39
Transportation, Communication, Utilities	40-49
Service Bureaus	7372, 7374, 7379
Banking	60, 61, 67XX
Finance, Insurance, Real Estate	62-68, exc. 67XX
Wholesale Trade	50, 51
Retail Trade	52-59
Health and Medical Services	80
Education	82
Other Services	70-89 except 7372-7379; 80; 82
State and Local Government, Federal Government	90-97

Agriculture, Mining and Construction

Respondents from this group fall into SIC codes 01-07 and include those involved in the following activities:

- Agricultural production of both crops and/or livestock.
- Agricultural services for crops and/or livestock (such as veterinary services or soil preparation, etc.).
- Forestry activities (such as operating timber tracts).
- Mining activities of any kind (metal or nonmetal) including actual mining or exploration services, etc.
- Oil and gas extraction, i.e., production of crude or natural gas and/or oil recovery and/or related field services.
- All forms of construction, including general contractors, and highway and street construction, as well as related activities such as electrical work, plumbing, masonry, etc.

Primary Metals, Fabricated Metal Products, Electrical & Electronics Equipment (Durables) Manufacturing

Respondents from this group fall into the SIC groups of 33-38 and include those involved in the following activities:

- Primary metals smelting, refining, rolling, drawing etc.; manufacture of nails, bolts, nuts, wire, cable, etc.; and the production of coke.
- The fabrication of products from metal(s) including cans, tools, hardware, tinware, etc.
- The manufacture of fixtures and structural metal products.
- The manufacture of forgings and stampings.
- The manufacture of machinery, both heavy and light.
- The manufacture of electrical and electronic equipment (including the computer industry).
- The manufacture of small and major appliances.
- The manufacture of communications equipment.
- The manufacture of transportation equipment and vehicles.
- The manufacture of measuring, controlling and analyzing instruments.

Other (Nondurables) Manufacturing

Respondents from this group fall into the SIC groups 20-32, 36 and 39, and include those involved in the following activities:

- The manufacture of food and kindred products.
- The manufacture of tobacco products.
- The manufacture of textiles and/or apparel.
- The manufacture of lumber and wood products, including furniture and paper products.
- Printing, publishing and related activities.
- The manufacture of chemicals and petroleum products.
- The manufacture of rubber, plastic, leather, clay, stone, glass and/or products composed of said materials.
- Various manufacturing industries not classified elsewhere.

Transportation, Communication, and Utilities

Respondents from this group fall into SIC codes 40-49, and include those involved in the following activities:

- All transportation services including rail, air, water and ground transport.
- Pipeline services.
- All communications including radio and television.
- All utilities including electric, gas and sanitary services.

Service Bureaus

Respondents from this group fall into the SIC groups of 7372, 7374, 7379, and include those involved in the following activities:

- Computer programming and other software services.
- Data processing services.
- Computer services not elsewhere classified.

Banking

Respondents from this group fall into SIC group 60, and include those involved in the following activities:

- Federal reserve banks.
- Commercial and stock savings banks.
- Mutual savings banks.
- Trust companies not engaged in deposit banking.
- Establishments performing functions closely related to banking such as foreign exchange establishments, clearinghouses and safe deposit companies.

Finance, Insurance and Real Estate

Respondents from this group fall into SIC groups 61-68, and include those involved in the following activities:

- Credit agencies other than banks.
- Savings and loan associations.
- Credit institutions.
- Security and commodity brokers, dealers, etc.
- All insurance functions.
- All real estate functions.
- Those establishments which are combinations of real estate, insurance, loans and/or law.

Wholesale Trade

Respondents from this group fall into SIC codes 50-51, and include those involved in the following activities:

- The wholesale distribution of any durable goods.
- The wholesale distribution of any nondurable goods.

Retail Trade

Respondents from this group fall into SIC groups 52-59, and include those involved in the retail selling of any goods, including:

- Building materials and all other home-related supplies.
- General merchandise.
- Foods, including those sold in restaurants.
- Automobiles, boats and other vehicles.
- Furniture and furnishings.
- Apparel and accessories.

Health and Medical Services

Respondents from this group fall into SIC group 80, and include those involved in the following activities:

- The practice of general or specialized medicine and/or surgery.
- The practice of general or specialized dentistry and/or orthodontics.
- The practice of general or specialized osteopathics, optometry, chiropractics or other licensed health fields.
- The running of hospitals, clinics, medical and dental laboratories
- Other human health services not classified elsewhere.

Education

Respondents from this group fall into SIC group 82, and include those involved in the following activities:

- Elementary and secondary schools.
- Colleges, universities, professional schools and junior colleges.
- Libraries and information centers.
- Correspondence and vocational schools.
- Schools and educational services not classified elsewhere.

Other Services

Respondents from this group fall into SIC codes 70-79 (except 7372-7379), 80 and 82, and include those involved in the following activities:

- Lodging.
- Personal and/or business services.
- Automotive repair, services, garages.
- Miscellaneous repair services.
- Motion pictures.
- Amusement and recreation services.
- Legal services.
- Social services.
- Museums, galleries, etc.
- Membership organizations.

Government

Respondents in this category are from all levels of governmental bodies at the state, local and federal levels.

Industry Group Revisions

Please note that the following changes have been made to previous IDC Industry Groups for the MIS User Spending Surveys:

- Agriculture, mining and construction were formerly carried as part of the other category.
- Service bureaus were formerly included as part of the business services category.
- Finance, Insurance, and Real Estate (F.I.R.E.) have been broken out from both the old business services and other categories.
- Health and medical services have been broken out from the old other category.
- Other services have been broken out from both the old business services and other categories.

- Transportation and communications have been broken out of the old other category and combined with the old utilities category to form a new category of transportation, communications and utilities.
- Banking now includes credit agencies and holding/investment operations that were formerly carried in the other category.
- Wholesale/retail now includes eating and drinking establishments that were formerly carried in the other category.
- The current category of durable manufacturing now includes all of electrical and electronic machinery, equipment and supplies manufacturers. The former durables manufacturing category carried the bulk of this industry sector in the other category.
- The current category of nondurable manufacturing now includes SIC coded industries 30 through 32 as well as group 39 which was formerly carried in durable manufacturing.